(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 14 July 2005 (14.07.2005)

PCT

(10) International Publication Number WO 2005/063637 A1

(51) International Patent Classification⁷: C03B 37/005

(21) International Application Number:

PCT/GB2004/005457

(22) International Filing Date:

29 December 2004 (29.12.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0330146.2

30 December 2003 (30.12.2003) G

- (71) Applicant (for all designated States except US): GLASS-FLAKE LTD [GB/GB]; Forster Street, Leeds LS10 1PQ (GB).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): WATKINSON, Charles [GB/GB]; Bridge Cottage, Long Lane, Great Heck, Yorkshire DN14 0BE (GB).
- (74) Agent: HARRISON GODDARD FOOTE; Belgrave Hall, Belgrave Street, Leeds LS2 8DD (GB).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: FORMATION OF GLASS FLAKES

A MEANS OF EFFECTING PARTICLE SIZE DISTRIBUTION IN GLASS FLAKE PRODUCTION 110.00% 100.00% ---100 UNITS 90.00% 200 UNITS •500 UNITS 70.00% 60.00% 50.00% 40.00% 10.00% 0.00% 300 500 900 1100 1300 THICKNESS (nm)

(57) Abstract: A method of changing the width of particle thickness size distribution of flakes of material is disclosed. The flakes are formed by a process which comprises feeding a stream of molten material in a downwards direction into a rotating cup or disc, and allowing the material to pass over the edge of the cup in such a manner as to be forced into the gap between a pair of plates surrounding the cup, the movement of the material being maintained in an angular direction and effected by a flow of air passing through the plates and either side of the material so as to pull the stream of material in such a manner as to keep it flat and also to pull it so that, as solidification of the material is effected, the sheet of material so formed is broken into flakes, the method further comprising varying the distance between the cup and the entrance to the gap between to adjust the distribution.



